

## DISCHARGE CAPACITY CHART (BTS-11) SATURATED STEAM - WITHOUT OVER PRESSURE

Valve Size	20X25	20X25	25X25	25X25
Orifice Designation	E	F	E	F
Orifice (seat) Dia. mm	12.7	19	12.7	19
Area cm <sup>2</sup>	1.2645	2.83385	1.2645	2.83385
Set Pres.Kg/cm <sup>2</sup> (g)	<b>Discharge Capacity kg/hr - Constant - 24</b>			
1.0	61.1	137.0	61.1	137.0
1.5	76.0	170.3	76.0	170.3
2.0	90.9	203.7	90.9	203.7
2.5	105.8	237.0	105.8	237.0
3.0	120.6	270.3	120.6	270.3
3.5	135.5	303.7	135.5	303.7
4.0	150.4	337.0	150.4	337.0
4.5	165.3	370.4	165.3	370.4
5.0	180.2	403.7	180.2	403.7
5.5	195.0	437.1	195.0	437.1
6.0	209.9	470.4	209.9	470.4
6.5	224.8	503.8	224.8	503.8
7.0	239.7	537.1	239.7	537.1
7.5	254.6	570.5	254.6	570.5
8.0	269.4	603.8	269.4	603.8
8.5	284.3	637.2	284.3	637.2

### 1- Discharge Capacity Calculation as per IBR Formula

$$E = CAP = 24 \times Area \times ((Set Pressure \times 0.980) + 1.033)$$

### 2- Constant ( C ) Standard by IBR is '24'

C = Constant 24      P = Set Pressure in kg/cm<sup>2</sup>(g)

A = Area in cm<sup>2</sup>      E = Discharge Capacity in kg/hr

**NOTE : - Orifice Dia 12.7mm Only for SIB.**